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THE TRAINING SCHOOL BULLETIN

MARCH 1923

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THE TRAINING SCHOOL
DEVOTED TO THE INTERESTS OF THOSE WHOSE MINDS HAVE NOT DEVELOPED NORMALLY
VINELAND NEW JERSEY

THE TRAINING SCHOOL BULLETIN

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EDITORS

E. R. Johnstone — S. D. Porteus
Helen F. Hill — Alice Morrison Nash

EDITOR'S NOTE—The Bulletin is an experiment in cooperative journalism. Contributions are solicited from all who are interested in work for the defectives and who have a successful method to report or an earnest criticism to make. It is expressly desired to give place to various shades of opinion.

Articles by the regular staff are initialed, for those and for unsigned articles, the Editor is responsible. For signed articles the responsibility rests with the authors.

THE
TRAINING SCHOOL BULLETIN

MARCH 1923

Tests in Pitch Discrimination of Normal and Feeble-Minded Children *

Georgia L. Allen

It is generally accepted that differences exist between feeble-minded and normal children of the same mental age, which are not brought out by intelligence tests alone. A feeble-minded child of mental age seven is not exactly like a normal child of mental age seven. This difference has been variously expressed as a lack in originality and initiative (Doll), unequal spreading of improvement to related activities (Woodrow), lack of judgment (Binet), and a lack of energy as well as the lack of capacity for directing energy (Goddard).

It is a question of what underlies these differences. Is there a lack of sensory capacity? Is there a difference in the ability to interpret sensations? These are some of the specific questions in the field of sensation.

There are thought to be aptitudes and specific abilities that stand out as being apart from the general intelligence. We find the feeble-minded being credited with musical ability. Have they this specific ability? If so, have they an inherent musical appreciation, is it due to training, or have they such a discrimination of pitch as to give them special ability in musical performance? Is there a correlation between pitch discrimination and musical ability?

The following tests in pitch discrimination of normal and feeble-minded children were made in order to compare their abilities and

*NOTE.—This study was made five years ago. It was not published at the time because both Miss Allen and I wished to supplement it at several points. But alas for the plans of mice and men! It now seems that so much painstaking work should not be lost. We, therefore, offer it as it is.
HENRY H. GODDARD.

differences in sensory capacity, the relation to musical ability, and incidentally, for developing a psycho-physical method for the study of defectives.

The problem concerning the sensory capacities and limitations of the feeble-minded was begun by Doll. His article "Sensory Discrimination in Normal and Feeble-Minded Children" is the first work to appear in this series. Not much has been done in this direction aside from Doll's work.

Before proceeding with the problem by the experimental method, some prior considerations relative to the musical ability of the feeble-minded may be presented.

Because moronity is but a late discovery and because the lay mind thinks of feeble-mindedness in terms of idiocy or low imbecility, visitors hearing a band or chorus composed of feeble-minded children, are very much impressed by the performance. They say with sincerity, "It is simply wonderful."

For this reason the impression prevails that feeble-minded children are especially good in musical performance and ahead of normal children in ability. It has been asked, "Why are feeble-minded children so musical?" The answer is, "They are not."

In analyzing a musical performance we must admit it makes a more ostentatious showing than making beds, reading, or milking cows. Art needlework of various sorts does the same thing.

People exclaim over the tatting, crocheting and embroidery of feeble-minded girls. They even go so far as to say that they themselves could not do so well. We must remember under what conditions most of our own art needlework is done. Many greater demands and interests step between us and our performance of this type of recreation. The same proportion of effort that we put into the solution of some real problem before us is put into her needlework by the feeble-minded girl. Time and responsibility are eliminated for her.

In the training of feeble-minded children, many repetitions of instructions are necessary. When we hear the musical performance of such children, we forget the *years* of repeated and simple instructions that serve as the foundation.

If a normal child began cornet lessons at six years of age and took an hour a day for twenty-two years, what would not be expected in the way of an exhibition? Yet the performance of a feeble-minded boy who has received just this training is called wonderful. Even now his notes often show uncertainties and lack of confidence. Ranked

simply as an exhibit of musical execution it would be called mediocre.

It is just because normal children are not given this advantage of musical training that we know so little of what the actual difference is. The interests and demands of the normal child would not hold him to long daily lessons through a number of years (granting that there was enough to learn in that time) unless he were making a specialty of the training.

School bands are of recent origin and subordinate to many other branches of learning. School instruction in vocal music is more common and from this one may see a proof of the inferior musical ability of the feeble-minded. The teaching of music is somewhat different in method in different public schools; in some schools third-grade, in others second-grade children are given two-part singing, and in grades fifth to eighth is found instruction in four-part singing. It takes a certain self-reliance, concentration and independence before children can carry different parts of a song together, and most certainly interpretation is dependent upon intelligence.

I have heard the Primary Public School children of Oakland give a concert and the audience marveled. The performance of these little tots was not dissimilar to that of a well-trained band of feeble-minded children.

Long practice and a limited repertoire are the conditions for success with band music by feeble-minded children. Among such children, orchestras are never satisfactory on account of the judgment, memory and attention involved in playing stringed instruments correctly. In such orchestras are necessarily found normal people as leaders and bearers of the responsibility.

Imitation, which plays such a large part among the feeble-minded, is apparent in vocal activity as elsewhere. A superficial vocal quality can be imitated very well and this often passes for native ability of another sort. Here, too, constant practice, with an excellent model, is the only course to follow.

Why does a musical performance make a better showing than some of the other things done by the feeble-minded? Harmony, melody, rhythm, all appeal to deep-rooted emotions in us. For ages man has expressed himself in this way. Every village has its band today and there are "barbers' quartettes" all over the country. People sing, hum and whistle about their work or play as a natural expression of their own emotion. The appeal is direct and we respond. Melodic and rhythmic factors are very powerful in childhood before they are

superseded by greater interests, and among the feeble-minded, the childish-minded, the appeal remains.

From the foregoing observations we should expect to find that our problem is not that of accounting for remarkable musical talent on the part of the feeble-minded, but rather that of discovering in what way if any the feeble-minded differ from normal children of the same mental age.

It must be kept in mind that in considering feeble-minded children our problem may be seriously affected by the familiar fact that while we speak of them as of the same mental age as normals the feeble-minded have the advantage (or disadvantage) of having been of the same mental age for a number of years.

Let us now turn to the scientific problem. Our first problem is the question of method. The difficulty here lies in the fact that no satisfactory psycho-physical method for the feeble-minded has been developed. The methods of the psychological laboratories are not applicable for the feeble-minded, as a moment's thought will show.

Fernberger concludes that any test is "malicious" which uses less than fifty judgments per individual. Titchener suggests that one judgment is sufficient if a large number of cases is used, while Whipple advocates ten judgments as a compromise between the extremes of fifty and one.

Fifty compared judgments to each feeble-minded child is impractical. The feeble-minded child loses the idea of what is to be done after a short time and fifty judgments overtaxes his naturally poor attention and concentration. It was found by experiment that fifty paired comparisons took about nine minutes of concentration. This is too much to require of the feeble-minded.

Still adhering to the idea of as many judgments as was compatible with the intelligence of the subjects, we decided to try twenty tests per individual. These would require about four minutes of attention, which is much nearer the capacity of the feeble-minded.

We attempted to apply Titchener's method also. The results are discussed later.

Subjects. The subjects of this experiment were 120 feeble-minded children from the Training School, 120 normal children from the Vineland Public Schools, and 20 normal adults.

The 120 feeble-minded from the Training School were grouped according to their Binet records, 20 children each, 10 boys and 10 girls, of mental ages 5 to 10 inclusive. Those tested were considered to have ordinary hearing ability.

In the Public Schools the records of the children were consulted as to the date of their initial entrance, their progress and their standing. All very bright, dull or deaf were excluded. Combining the evidence of the records and the teachers, the children of the Public Schools must be accepted as normal.

Technique. The technique used in these tests was that recommended by Seashore: The Measurement of Pitch Discrimination. Psychological Monographs No. 53, Dec. 1910.

Apparatus. The apparatus used was that recommended by Seashore, and consisted of the tuning forks advertised as No. 1730 in catalog of C. H. Stoelting, Chicago. These are tuned approximately the same as the standard pitch discrimination set made in Germany (p. 30 of the above-mentioned monograph).

In place of the Koenig adjustable resonator, test tubes 10 inches long, about 1¼ inches in diameter were suspended by silk threads from a small cord tied across a wooden frame as recommended by Seashore (p. 26). Water was poured into the test tubes until they were tuned to the pitch of the forks, and gummed strips were placed around the test tubes to indicate the necessary height of the water to make apparent the evaporation that takes place. We used four test tubes as resonators, one for the standard and increments 0.5, 1, 2, 3; one for the 5 and 8; one for the 12 and 17 and one for the 23 and 30.

For a sounder, a glass rod about one inch in diameter was covered with heavy rubber tubing, soft but firm, and the end of the rubber covered rod clamped into an iron vise fastened into the top drawer of a desk (p. 30). A large opaque screen concealed the movements of the experimenter.

Procedure with forks. The forks were kept in the same room at about the same temperature, handled carefully from the end of the stem, and in sounding were struck squarely on the side and near the center of the prong. They were struck with as little force as necessary, the aim being to make a plainly heard tone, but not a loud one. Automatic hammers were not used because Seashore says: "The hammer produces more uniform intensity than we can produce by the stroke of the hammer in the hand, but after a few trials the observer will detect some constant peculiarity of that stroke, and from that moment the test is vitiated. Our general solution is to get as much uniformity as possible without making it constant" (p. 28). He further says: "It required more skill to operate one of these devices safely than to follow the simple plan recommended. The ever-present

and practically insurmountable danger is that of identification of a tone by some character other than pitch" (p. 36).

In an attempt to avoid this error we used the following procedure: One fork was held in each hand. The first fork was struck on the sounding rod close to the clamped end, and after one second to permit the symmetrical vibrations of both prongs, was brought to the mouth of the resonator by a quick movement and held there one second. Simultaneously with the withdrawal of the fork from the mouth (in the same line as the approach) the second fork was struck and presented at the mouth of the resonator. Regarding the time interval, we are reminded of the memory element involved in discrimination for successive stimuli and that "the curve of tonal memory shows that the accuracy falls off very rapidly immediately after the first second of interval" (p. 35).

Practice made it possible to keep the duration and intensity practically the same; at least, they were as nearly alike as possible in each two comparisons, for the second fork could be held so that it would give the same intensity as any accidental intensity of the first fork. This was advantageous, as it showed the subject that there were slight variations not constant, and therefore not to be taken as a cue for identification. After the preliminary tests the subjects were instructed that these variations might occur, but were not to be used as criteria.

The test. The test itself differed from that recommended by Seashore in that the aim was not to discover the individual limens of the feeble-minded, but to make some experiments and observations upon their discriminative ability. The increment of 8 vibration difference (vd.) was chosen for comparison with the standard fork (435 v.), as this comparison represents, according to Seashore, a *"moderate ability* of the *medium ear."*

Order of Tests. The order of the tests was a random one determined by tossing a penny. The first ten tossings resulted in the following arrangement:

s (standard) 8 (vibration difference) 8 s s s 8 s 8 8

This order was used in all the series. The same mode of procedure was used throughout all the tests given.

Preliminary tests were given to twelve feeble-minded children. They were first instructed to answer in terms of the second fork; whether it was higher or lower than the first; but instead they answered in terms of the higher (first or second). The instructions were accordingly changed since they seemed to comprehend more readily that method of reporting.

Procedure with Subjects. The child was shown the tuning forks and told that every one had a different sound. The 30 vd. and the I vd. were sounded before his eyes and he was asked which one was the higher. He usually pointed to the resonator of the 30 vd. or in some way indicated the correct answer. Then the 3 vd. and the 17 vd. were sounded. After that judgment the experimenter hummed two tones and the child naturally fell into the method of responding which was higher, first or second. Another trial was given with the voice in inverse order and another with the forks, purposely varying the intensity a little. Then if correct judgment had been given, the child was seated at the side of the desk with the screen concealing the apparatus and the experimenter. He was instructed to answer as before, which of the two tones was the *"higher,"* the first or the second. He was told there would always be a difference. If he insisted there was no difference, it was counted incorrect.

During the instruction, if the child made many incorrect answers the forks were held to his ears. The clumsy-looking apparatus was sometimes found to be distracting. If he made correct judgments from these, the tones made by the forks at the resonators were hummed and the child was requested to hum them. In this way the children were generally able to transfer the correct idea of pitch from the hummed tone to that made at the resonator. Then the idea of the pitch of the fork held to the ear was transferred to the pitch of the same fork when held to the resonator.

With a few exceptions the subjects seemed to have the idea before the actual tests were given. The series of twenty tests given each child took from three to five minutes.

Before considering the results the question of chance guessing must be taken into account. Since chance would give 50% correct answers it was a question of how many of their responses were actual judgments and how many pure guessing. In a very large number of cases the chance would of course be 50% correct answers. What chance element existed in so few as twenty judgments? In order to ascertain this we tossed a penny for 22 series of 20 tests each, following the same order as the other tests and marking responses with heads for standard (lower) and tails for the 8 vd. (higher). Although penny tossing has been called a poor chance test because of the known possibility of making heads come up, in this case, in 440 throws, heads came up 228 times and tails 212 times.

Since in two out of the 22 series with the penny, heads came up in 75% of the trials, it is clear that in so far as 20 cases it is possible that chance may give 75% of correct responses. Therefore, we have used in the following tables only those percents over 75 as probably due to actual judgments.

Table I shows the result with the penny. It is to be read as follows: 1 series gave 30% heads, 3 series gave 35% heads, etc.

TABLE I

Showing the percentage of "heads" in each of 22 experiments of 20 throws each of a penny

Per Cent of Heads	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
No. Series			1	3	2	1	5	2	2	1	3	2		Total Series 22			

Total "heads" 228. Total "tails" 212

Table II shows the number of correct responses in tone discrimination using 8 vd. with 100 feeble-minded children, mental age from 6 to 10 inclusive, arranged according to their mental ages and grouped with respect to the per cent of correct responses given.

TABLE II

100 feeble-minded subjects

Per Cent Correct	5	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	No. Cases Above 75%	Total
Mental Age																				
6		1		1		3		0	2	3	2	1	1						0	20
7				1		3	3	2	2	3	2	3	1						0	20
8	1		1	1	1	2	4	1	3	1	1		1	1	2				3	20
9							2	3	4		2			2	1	1	2	3	9	20
10				1		2	2	1		2	1	3	1		1	3	1	2	7	20
Total	1	1	1	4	1	10	11	13	11	9	8	7	4	3	4	4	3	5	19	100

It is to be read as follows: At the mental age of six, one child made 20% correct responses, one 30% correct, three 40%, six 50%, two 55%, three 60%, two 65%, one 70% and one made 75% correct responses.

It will be seen that no feeble-minded child of either six-year or seven-year mentality made more than 75% right responses.

Kindness to Feeble-Minded Children

M. V. O'Shea

There lie before me two letters written by mothers, each of whom has a feeble-minded boy. One boy is ten years of age, but he is unable to complete the first grade in school. His mother wrote to me some time ago describing this boy's characteristics, and upon request she gave me an opportunity to look him over. From infancy he has developed slowly. He has not been able to play with children of his own age because he has not been keen and agile enough to hold up his own end of any game. He learned to speak very late and he cannot yet construct a complete sentence. He has a thick voice and he cannot pronounce difficult words. He cannot easily perform physical tasks suited to his age, such as riding a tricycle. He walks and especially runs in an uncertain, awkward way. He has made practically no headway in his school work. His parents did not send him to school until he was eight years old because they realized that it would be useless for him to try to learn anything before that age. His eyes have a dull expression, and they do not change readily in response to changing circumstances in his environment. A few simple tests showed that he was at least six years below his proper mental age.

The mother was advised to have the boy placed in a school for feeble-minded children, where he could be cared for and taught in accordance with his needs, and where he would be able to associate with children of restricted mental and motor abilities like himself. She said she would go to her home and think over the matter. She has written now saying that she cannot bear to send her boy away from home. She says she realizes his mind is feeble, but she thinks that on this account he needs her to watch over him more than if he possessed normal faculties. She inquires whether it will not be possible to teach him at home so that he can live a useful life. She is willing to sacrifice much of her own time and comfort in order to help this boy to make the most of his limited talents.

The second letter referred to above was written by a mother of a fourteen-year-old boy who is retarded five years in his mental development. When the mother wrote me first regarding him I suggested that she should have an examination made of the boy's intelligence since she lived near a university where suitable test could be easily applied. The examination revealed the fact that the boy was seriously deficient in mental vigor and could not by any known methods of

treatment attain normal development; he can probably never get beyond a ten-year-old intelligence. This mother, like the first one, was advised to place the boy in an institution for feeble-minded children, and she willingly followed the advice. The boy was taken to Vineland, New Jersey. The mother accompanied him and gave a history of the case to the receiving officer. She remained for several weeks near the institution so that she could get daily reports regarding the readiness and completeness with which the boy adapted himself to the Vineland régime.

Several months have elapsed since the boy was placed in the institution and the mother now writes me expressing her delight in having discovered Vineland. The boy is happier than he ever had been at home. He has gone through the winter without sickness, which has never been the case any previous winter. He likes his program of work and play in the institution, and the mother feels that he is vastly better off there than he would be in his own home or in any private school.

Which of these mothers is the best friend to her boy? The answer is easy. Both mothers feel profound affection for their children. The first mother is governed entirely by her maternal instinct of protection, and so she cannot endure to have her boy separated from her. A mother always feels that she should keep her flock under her wing so that she can protect them from harm, and this is particularly true with respect to children who cannot take care of themselves. But so long as a feeble-minded boy remains in his home he will be a source of distress to all the members of the household, and he cannot be happy himself because he will be an ugly duckling in any situation in which he may be placed. He will have to play with children much younger and smaller than himself. If he is in school he will be treated as a booby; it is impossible to prevent normal children from making fun of an over-grown, stupid pupil. They do not realize that he is handicapped by nature; they simply follow the natural impulse to ridicule and hector anyone who is not capable of doing the sort of things that belong to his age. Such a boy will be a misfit everywhere, and this means that he himself and all who are responsible for him will suffer because of his inability to adapt himself to his environment.

The second mother has been able to control her impulse to keep her boy always within reach, and now that she sees how much better off he is when he lives among children of about his own mental caliber,

she is happier than when she would not let him get out of sight. The boy may be trained at Vineland to do some useful thing so that he can support himself in a simple way; if he is capable of learning anything he will be taught that thing at Vineland. But the typical home cannot deal intelligently with a child whose mind is heavily handicapped because parents, brothers and sisters and teachers of normal children and neighbors do not understand the workings of a feeble mind, and they do not know how best to train such a mind. Consequently, irritation cannot be avoided in a home where there is a feeble-minded child, no matter how kind and considerate those around him may treat him. The regimen in the home is adapted to the capabilities and needs of normal children, as it should be, and a sub-normal one will be in the way no matter how much care may be taken to protect him from discomfort.

I have mentioned Vineland simply because the mother to whom I have referred placed her boy in that institution. There are other institutions in the country modeled in a general way on the Vineland pattern. There are many feeble-minded children in the country who are kept in homes, but who would receive much better care and training in these institutions. If parents would rid their minds of the notion that it is a punishment to a child to send him to an institution for the feeble-minded, they would be able to take a more rational view of the matter. Instead of its being a disadvantage, it is a blessing for a child to be placed in a school in which he is understood and can be trained according to his needs, and in which his associations will be with children possessing native ability like his own.

The Year's Resume of the Sports and Games Enjoyed by the Boys

C. A. Feeley

Much can be said about the sports and games of our boys during the year. Their playfields are well equipped with apparatus and plenty of space for baseball, basketball and various other outdoor games that are of such benefit to the life of a boy.

The children take great interest in their games and look forward months in advance to the approach of different sports. Winter hardly passes when every boy strong enough is seen playing with his ball or carrying his glove or bat about. Before the baseball season arrives it is a common sight to see a boy playing around or going to school with a glove attached to his belt or a ball in his pocket.

At the proper season baseball is taken up under close supervision and coaching. The little fellows give to it most of their spare time. At the cottages and at school they play on—never seeming to tire of it.

The evenings are given to the older boys, who put heart and soul into preparing themselves for games with outside teams. Twenty or so games are played each season. Last year out of schedule of twenty games, sixteen victories was the reward for the hard training and long practice.

While baseball and football are in season the games taught and played in school suffer. Fox and Geese, Dodge Ball, Horse and Riders, Horseman all off, Chase the Squirrel, Jump the Rope, and various other games are always in demand and help to pass the long winter months while we are confined to our Gym. They also serve as entertainment at parties.

Summer is the time of joy. The children look forward to their picnics, camping trips, a dip in the cool waters of the creek or a pleasant day at Ocean City, Wildwood or some other resort. Before we realize it fall is here.

Football also has its virtues. Boys who have no interest in other games come out for football. It is a new game for them which makes it all the more exciting and interesting. Last fall, due to their keen desire to learn the game, a surprisingly good team was formed and some very hard games were played.

The boys have unbounded faith in their team and never doubt for a moment that it is one of the best. Games are played just as hard by the on-lookers as by the players themselves and played over and over again for weeks after.

The seventeenth session of the Summer School for Teachers of Backward or Mentally Deficient Children will be held from July 16th to August 24th. As students will live at the Training School the number will be limited to sixty. The tuition fee is one hundred and twenty-five dollars.

Review

THE NEUROTIC SCHOOL CHILD. Cyril Burt. London: Studies in Mental Efficiency, Vol. 4, No. 1, Jan. 1923.

About six per cent of children of normal intelligence are classified as neurotic, if by neurotic we mean that they have an unusually great susceptibility to unhealthy ways of reacting to life's situations. This does not mean that they have a definite psychosis or psychoneurosis. If we limit ourselves to those cases so advanced as to make a diagnosis or classification into reaction types possible, the percentage would be greatly reduced below six. However, we do find among children practically the same types of minor psychosis as are found among adults. The most commonly recognized condition which is of sufficiently constant form to constitute a reaction type is neurasthenia.

"Of all the neuroses recognizable during childhood the one which most commonly produces educational backwardness and simulates congenital dullness is neurasthenia. Neurasthenia is a term most loosely used. There is, indeed, a tendency to apply it to almost every kind of neurosis that is not conspicuously hysterical. By the more accurate writers, the word is kept specifically to denote a primary fatigue neurosis. It signifies, that is to say, a functional nervous disorder, which is not merely an incidental after-effect of some other previous illness, but is itself apparently fundamental, and is essentially marked by an unusual susceptibility to fatigue.

"Neurasthenic children are by no means as dull as they appear. In educational attainments, it is true, they are at times exceedingly retarded; and in the classroom they sit listless, irresponsive and inert. These are the young sorrowfuls whose teachers constantly complain that they were "born tired." Nevertheless, they have often deep and genuine intellectual interests; they are sincerely eager to make headway in their school work; and repeated failure and exhaustion afflicts their sensitive minds with the acutest misery and distress. It is characteristic of them that with brief conversational tests, such as those that make up the Binet-Simon Scale, they do well. When an appropriate appeal is made, their spontaneous attention may for the moment be ready and intense. But with voluntary attention it is different. The effort of will so easily induces weariness, and is itself so easily destroyed by fatigue, that all continued application is beyond them. Lack of sustained concentration is thus their gravest and most evident failing.

"Memory depends upon voluntary attention. Consequently the inability to attend carries with it an inability to memorize and learn. Wherever school

work requires memorisation, in getting by rote the multiplication table, in learning the rules and irregularities of spelling or grammar, there the neurasthenic seems for ever at a standstill. The liability to brain fag, as it is familiarly called, manifests itself incidentally in perpetual inaccuracy and seeming carelessness. The child's paper work is all scribbled, blotted, and erased; and any unusual strain or stress is likely to reduce him to silent tears.

"The essential condition may be detected by one of the many tests for fatigue. Perhaps the simplest is the Kraepelin addition test. Here the child adds pairs of one-place figures printed in columns: the number correctly added in each period of ten seconds is computed; and the diminution in amount measures the susceptibility to fatigue. Such a test may be applied quite easily as a group-test to a number of pupils working together in class. The normal child, as he warms to his work and reaps the benefit of adaptation and practice, shows at first a discernible improvement. Fatigue may not appear for several seconds or even minutes, the time varying considerably with the age and ability of the examinee and with the special conditions of the experiment. The neurasthenic, however, shows the symptoms of exhaustion from the very start; his output begins instantly to decline; and continues to fall at a far more rapid rate than the normal; before the exercise is over, flushing, flurry, and confusion give evidence of emotional strain and impending collapse.

"Neurasthenia is generally attended by distinctive bodily symptoms. Without any manifest illness being present, the child nevertheless seldom seems well. He is intolerant of cold; and often looks as chilly as he feels. His pale face and puffy eyes wear the expression of one who is thoroughly tired, depressed, and unhappy. All his muscles appear limp and relaxed; and his whole being is wanting in physical and moral tone.

"The feelings of fatigue are often localized in definite parts of the body. The child, when sympathetically questioned, admits that he continually suffers from aches and pains in his head, in his back, or in his legs and arms. A common feature is the so-called irritable eye. The eyelids are heavy and sore. Both the retina and the smaller and larger muscles of the eye are quickly fatigued, even where only the slightest errors of refraction are discoverable, or perhaps none whatever. The child prefers to work in a good light; and yet suffers easily from glare. Reading, writing, and needlework can thus be continued only under great difficulties. Sleeplessness is almost an invariable complaint. Sleep-walking, sleep-talking, and nightmares are not common; nor is the insomnia severe; but the child finds it difficult to get to sleep during the first hours of the night; and often dozes on until late in the morning. Bad sex habits are frequently discoverable, and may perhaps be intimately connected with the child's condition.

"Many common ailments are accompanied or followed by similar states of nervous debility. A condition of high fatiguability is a common sequel to influenzal attacks, and a frequent concomitant of chronic gastro-intestinal catarrh. Thus it seems legitimate to recognize a secondary as well as primary form of neurasthenia. But, whether manifestly secondary or presumably primary, neurasthenia is, in the opinion of most writers, attributable predom-

inantly to a physical cause—the favourite suggestion being derangement or exhaustion of the sympathetic nervous system either by auto-intoxication or by disturbances of internal secretion. It is here that the assistance of the medical man is most necessary, since he may be able to detect and deal with some underlying physical factor. As a rule, the disorder rests upon a vicious circle; the mental trouble aggravates the physical, and this in turn reacts upon the mental."

The picture given of neurasthenia in children is one that is of interest and recognized by all who have to meet the problem of adaptation difficulties in children. Rarer than this type and more advanced in their deviation from the normal are the anxiety state, anxiety neurosis, anxiety hysteria, compulsion neurosis and conversion hysteria. Feeble-minded and delinquent children seem to bear greater burden of neurotic reactions than do those of normal intelligence.

A comparative study of the intelligence of white and colored children made by Schwegler and Winn in the December number of the Journal of Educational Research shows that intellectually the colored children's level is only 85 per cent. of that of the whites.

To give children the greatest possible advantage from the schools and at the same time to cut down unnecessary costs, Denver schools are reclassifying all pupils according to mental age, studying the cost of instruction per pupil, helping children choose vocations when they leave school, and doing everything else they can to prevent waste in instruction, according to the December School Life, official organ of the U. S. Bureau of Education.

Five boys were recently brought before Recorder William J. Barbour in one of our New Jersey courts for throwing stones at freight cars and stealing rides. The magistrate said:

"You boys are starting out wrong. You all have the same chance to become useful men that Lincoln had. I want you to know something about Lincoln's life and his great address at Gettysburg. Study it as you would a lesson, and I will regard 80 points as a passing mark for your recitation one month hence. For every five points below 80 I will send you to the reform school for a year."

The whole point is that we have every reason to expect that a relatively large percentage of these defective children will fall into crime or into offenses which will bring them before the Juvenile Courts.—*Goddard.*

Special Events Under the Direction of Educational Department

1/3 Moving Pictures—"The Prodigal Judge."
1/7 Rev. MacMillan gave lesson talk.
1/10 Girls Party held in Upper Garrison Hall.
1/12 A party for Rob A & B, Mills and Baker boys.
1/17 Party for big boys. (Maple, Hazel, Linden, Cattell B & C—Rob, C & D—and Louden boy).
1/21 Mr. Dickson delivered the lesson talk.
1/24 Entertainment given by Mr. White, parent of one of our boys.
1/25 Special Assembly for the New Jersey State Appropriation Committee.
1/31 Entertainment given by Misses Geringer, Sanderson, Johnstone and Louise B. and some fifty children.
2/2 Special party given in Garrison Hall for Mills and Baker cottage boys.
2/7 Movies—"The Four Seasons" and a comedy "The Four Orphans." Excellent entertainment.
2/11 Mr. Stideley of New York told stories very pleasingly at the Sunday Assembly.
2/14 Magic Lantern and Musical entertainment.
2/16 Birthday Dinner held in Domestic Science room in honor of Carl's birthday.
2/18 Dr. Brock gave lesson talk at Assembly.
2/21 Surprise Lnucheon given for Henry K. in Domestic Science Room. This because he is ever doing so much for the happiness of others. Moving Pictures. Extra entertainment made possible by the kindness of friends.
2/28 Teachers entertainment under direction of Misses Keeny, White, Ethel B. and Mr. Minott. Sixty children took part.
3/4 Rev. MacMillan gave lesson talk.
3/7 Movie Entertainment—"The Headless Horseman."
3/14 A trip through Alaska by means of Lantern Slides. The slides were a gift of one of our parents and were very beaubeautifully hand colored.
3/21 A real old fashioned Family Party in evening.
3/28 Band Concert given under the direction of Mr. Kelly, Band Master and in charge of this Department.

Morning Assembly was held twenty times during the three months—on Tuesday and Friday Mornings.

Wednesday afternoon Programs held on average of three times monthly.